What is claimed is:

1. An image processing apparatus for conducting edge enhancement processing on an original image, comprising:

an enhancement amount calculation unit for calculating a density enhancement amount for each edge pixel of the original image, the edge pixel being a pixel in an edge area in the image;

an enhancement amount processing unit for correcting the density enhancement amount for each edge pixel in a manner to reduce variations in the density enhancement amounts in the overall edge area;

a density processing unit for correcting a density of each edge pixel of the original image in a manner to reduce variations in densities in the overall edge area; and

a density calculation unit for calculating an enhanced density of each edge pixel from the corrected density and the corrected density enhancement amount.

2. The image processing apparatus of Claim 1, wherein the enhancement amount processing unit changes the density enhancement amount for a target pixel in the edge area to a greatest edge enhancement amount in a predetermined area that includes the target pixel and edge pixels surrounding the target pixel.

3. The image processing apparatus of Claim 1, wherein the density processing unit changes the density of a target pixel in the edge area to a greatest density in a predetermined

4 area that includes the target pixel and edge pixels surrounding
5 the target pixel.

1   4. The image processing apparatus of Claim 1, wherein
2   the enhancement amount processing unit changes the density
3 enhancement amount for a target pixel in the edge area to a greatest
4 edge enhancement amount in a predetermined area that includes
5 the target pixel and edge pixels surrounding the target pixel;
6   the density processing unit changes the density of the
7 target pixel to a greatest density in a predetermined area that
8 includes the target pixel and edge pixels surrounding the target
9 pixel; and
10   the density calculation unit calculates the enhanced
11 density of each edge pixel by adding the changed enhancement
12 amount and the changed density.
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1   5. An image forming apparatus for forming an image,
2 comprising the image processing apparatus of Claim 1, wherein
3   the image is formed based on image data on which edge
4 enhancement processing has been conducted by the image processing
5 apparatus.
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1   6. An image processing apparatus for conducting edge
2 enhancement processing on image data, comprising:
3   a judgment unit for judging whether a target pixel is an
4 edge pixel which is in an edge area, based on the image data;
5   an enhancement amount calculation unit for calculating

6   first data expressing an edge enhancement amount for the target

7   pixel based on the image data;

8   a first processing unit for changing a value of the first

9   data for the target pixel to a greatest value among first data

10 of a) the target pixel and b) a plurality of pixels surrounding

11 the target pixel;

12   a second processing unit for changing a value of the image

13 data of the target pixel to a greatest value among image data

14 of a) the target pixel and b) a plurality of pixels surrounding

15 the target pixel; and

16   an addition unit for adding the changed first data to the

17 changed image data of the target pixel that is judged to be an

18 edge pixel by the judgment unit, and for outputting the resulting

19 data.

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1   7. An image forming apparatus for forming an image,

2   comprising the image processing apparatus of Claim 6, wherein

3   the image is formed based on the image data on which edge

4   enhancement processing has been conducted by the image processing

5   apparatus.

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1   8. An image processing method for conducting edge

2   enhancement processing on an original image, the method

3   comprising steps of:

4   calculating a density enhancement amount for each edge

5   pixel of the original image, the edge pixel being a pixel in

6   an edge area in the image;

7   increasing the density enhancement amount for each edge

8   pixel in a manner to reduce variations in the density enhancement

9   amounts in the overall edge area;

10   increasing density of each edge pixel of the original image

11   in a manner to reduce variations in densities in the overall

12   edge area; and

13   calculating enhanced density of each edge pixel by adding

14   the increased density enhancement amount to the increased density.

1   .

1   9. The image processing method of Claim 8, wherein

2   in the step of increasing the density enhancement amount

3   for each pixel, the density enhancement amount for the target

4   pixel is changed to a greatest density enhancement amount in

5   a predetermined area that includes the target pixel and edge

6   pixels surrounding the target pixel.